REMARKS/ARGUMENTS

In the Specification:

A new abstract has been provided in response to the Examiner's comments at point 1 of the detailed action. The amended abstract now contains less than 150 words.

The tables on page 1 and page 2 have been amended to include the US Serial Numbers.

In the Claims:

Claims 1-28 were pending in this application. The Examiner has rejected claims 1-28. By this amendment claims 1, 2 and 12 are amended and new claims 29 and 30 are added.

Claim Rejections 35 U.S.C. 102

Claims 1-3, 8-15, 17 and 23-25 are rejected under 35 U.S.C. 102 (e) as being anticipated by Silverbrook (US 5914737). Claim 1 is an independent claim directed to a method of controlling a printer module. Claim 12 is an independent claim directed to a controller for a printer module. Claims 2-11 are dependent upon claim 1 and claims 13-28 are dependent upon claim 12.　　　claim 10 is independent

In rejecting independent apparatus claim 12, Examiner has merely stated that "arguments analogous to those presented for claim 1 are applicable". In rejecting claim 1, Examiner has referred to specific items in the figures of Silverbrook and certain passages from the specification. The Examiner has identified certain steps in Silverbrook which are asserted to anticipate each of the steps of claim 1. Applicant submits that the Examiner's identification of similar steps is not a basis for asserting that an apparatus contains all of the same integers as that of the citation. In fact, Silverbrook does not disclose an image access unit. The present application states on page 13 on line 8 that "the controller 170 incorporates a simple micro controller CPU core 171 to synchronise the image capture and printing image processing chains....." Further, on page 15 at line 17 the specification states "the CPU does not have direct random access to this image memory. It must access the image pixels by the image access unit 182". The specification continues, "the image access unit (IAU) 182 is the means for the controller to access the image in image ram 181".

In contrast, Silverbrook states in column 5 at line 64, "the printer interprets information supplied by an external computer in the form of (sic) one or (sic) more page description languages (PDLs) to create a continuous tone page image". Silverbrook continues in column 6 from line 5, "a notebook computer calculates the image in a bitmap form, and provides this bitmap to the printer. The bitmap image is typically calculated using an imaging model provided by the notebook operating system, for example, Quickdraw or Quickdraw GX on Apple McIntosh computer and Microsoft GDI on computers running the Microsoft windows operating system. This image is stored in the internal memory of the notebook computer ....." It is clear from reference to figure 1a of Silverbrook and the description of the operation of the printer that Silverbrook does not have an image access unit, nor a need for an image access unit. In Silverbrook the images are supplied directly from a laptop computer to be printed by the printer. In contrast, the controller of the present invention must be able to perform additional tasks including the movement of images into and out of the image RAM.

Appln No. 09/575,119
Amdt. Dated February 27, 2004
Response to Office action of January 16, 2004   10

Applicant further notes that an important function of the controller is to authenticate the ink cartridge attached to the printer module. As described in the specification on page 14 from line 22, there are two interface connections that connect to a QA chip 190 in the printer module and a QA chip 189 in the ink cartridge. The two QA chips are implemented as authentication chips. A CPU mediated protocol between the two QA chips is used to authenticate the ink cartridge and thus avoid the possibility of a clone ink cartridge manufacturer usurping the authentication mechanism. This authentication process is not described nor discussed in Silverbrook.

Applicant notes the Examiner's comments in relation to the relevance of Bullock et al (US 5,699,091) to claims 26 and 27. Applicant further notes that in the following paragraph the Examiner makes reference to Silverbrook and Arthur (US 5,049,898). It seems to the Applicant that the Examiner's rejection of claims 26 and 27 under 35 U.S.C.103 (a) is based upon the combination of Silverbrook in view of Arthur, and not Bullock as stated. In column 3 commencing line 4, Arthur describes a memory element which can be written to or read from to store information about the printhead 12. Clearly, any memory element that can be written to is of no value for an authentication process. In any event, there is no suggestion or discussion in Arthur regarding the use of such a memory for authentication purposes. In fact, Arthur is only concerned with the use of this memory for recording of operational characteristics of the printhead.

Applicant has included new claim 29 and dependent claim 30 directed to this aspect of the invention. No new matter has been added in this new claim. The subject matter of this claim is adequately supported by the specification, particularly in the paragraphs at the bottom of page 14 and bridging page 15.

Corresponding changes have been made to the method of claim 1 to include the step of authenticating the ink cartridge by comparing said first authentication means and said second authentication means.
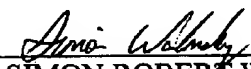
Appln No. 09/575,119
Amdt. Dated February 27, 2004
Response to Office action of January 16, 2004   11

        The amendment to claim 12 corrects an antecedent problem in the last line.
Applicant has noted the Examiner's comments in regards the relevance of the prior art and
has amended the claims accordingly. It is therefore submitted that the application is now in
condition for allowance. Reconsideration of the application is courteously solicited.

Very respectfully,

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